CLAIMS:

1. Integrated circuit comprising a plurality of modules (M) for processing applications, each having a local memory (LM), said integrated circuit further comprising:

- a global memory (GM), which can be shared by said plurality of modules (M);
- an interconnected means (IM) for interconnecting said modules (M) and said global memory (GM); and
- one memory managing unit (MMU) being associated to each of said modules (M), for determining whether said local memory (LM) provides sufficient memory space for the currently processed application and for requesting a global buffer (FB) in said global memory (GM) to be reserved for the processing data of the associated module (M), if there is insufficient memory space available in the local memory (LM).

2. Integrated circuit according to claim 1, wherein

- said memory managing unit (MMU) requests a communication path between its associated module (M) and said global memory (GM), wherein said communication path having communication properties according to the required access to the global memory (GM).

3. Integrated circuit according to claim 1, further comprising

- a resource managing unit (RMU) for allocating memory space in said global memory (GM) according to the request of said memory managing unit (MMU).

4. Integrated circuit according to claim 3, wherein

- said resource managing unit (RMU) is adapted for setting a communication path based on communication properties as requested by said memory managing unit (MMU).

5. Integrated circuit according to claim 4, further comprising

- an address translation unit (ATU) associated to each of said modules (M) for performing an address translation for data of an application, which are stored in said global buffer (FB) in said global memory (GM).

6. Integrated circuit according to claim 3 or 4, wherein

- said resource managing unit (RMU) is adapted to perform an access arbitration for said global memory (GM).

7. Integrated circuit according to claim 1, wherein

- said local memory (LM) comprises a prefetch buffer (PB) for prefetching data from said global buffer (FB).

8. Method for memory allocation in an integrated circuit comprising a plurality of modules (M) for processing applications, wherein each module comprises a local memory (LM), wherein said integrated circuit further comprises a global memory (GM) being adapted to be shared between said plurality of modules (M), comprising the steps of:

- memory managing by determining whether said local memory (LM) provides sufficient memory space for the currently processed application and for requesting a global buffer (FB) in said global memory (GM) to be reserved for the processing of one of said modules (M), when there is not sufficient memory space available in said local memory (LM).